

Appl. No. 10/064,820
Amdt. Dated April 6, 2006
Reply to Final Office Action of February 09, 2006

REMARKS/ARGUMENTS

This amendment is responsive to the Final Office Action mailed on February 9, 2005. In the Final Office action claims 1-31 were rejected.

Claims 1-8, 10, 12-14, 23-26, 28, 30, and 31 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford et al. (EP 479, 563 A2, hereinafter "Ransford") and Scorse et al. (U.S. Patent No. 5, 128, 776), claims 9, 11, 17, 18, 27 and 29 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford and Scorse and further in view of Chui et al. (U.S. Patent No. 5, 841, 473, hereinafter "Chui"), claims 15 and 16 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford and Scorse and further in view of Flower et al. (U.S. Patent No. 6,351,663, hereinafter "Flower"), claim 19 was rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford, Scorse, and Chui and further in view of Reinsch (U.S. Patent No. 5, 134, 661, hereinafter "Reinsch"), claims 20-22 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Ransford and Scorse and further in view of Koo et al. (U.S. Patent No. 5, 846,203, hereinafter "Koo"). The Specification was objected to due to certain informalities in claim 30. Claim 30 has been cancelled by this amendment.

In this response, claims 1, 12, 14, 15, 17, 20, 23, 24 and 31 have been amended to define the subject matter more clearly. No new matter has been added. Claims 9 and 30 have been cancelled.

Claims define allowable subject matter over the applied art

The independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31 have been rejected under 103 (a) as being unpatentable at least in view of Ransford and Scorse. Applicant has carefully reviewed the applied references, and respectfully traverses the rejection of independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, under 35 U.S.C. §103 (a) as being unpatenatable over Ransford and Scorse.

Examiner has referred to the "smoothed difference image" of Ransford as a teaching for the "span of interest" as recited in independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, as amended. However, the Applicant respectfully reiterates that the "span of interest" as recited in the above independent claims is distinct from the "smoothed difference image" or any other image as disclosed in Ransford. To clearly distinguish the "span of interest" the Applicant has amended the Independent claims 1, 12, 23, 24 and 31 to include "wherein selecting the portion of image in the span of interest comprises: selecting the portion of the image in a time sequence; and selecting the portion of the image in a space sequence." And similarly amended claims 14, 15, 17, and 20 to include "span of interest" with respect to a single frame or plurality of frames as recited in these claims.

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Support for the foregoing amendments can be found in the specification, at for example, page 5, lines where the Applicant, in the Specification has clearly defined "span of interest" as follows:

Also, as used herein, a span of interest is defined as a spatial and a temporal region of interest which may include the region of interest in time or the region of interest in space or the region of interest both in space and time.

Ransford discloses a compression technique which utilizes a "difference" model approach in which, prior to compression, a portion of the image falling outside a designated area of interest may be eliminated, for subsequent replenishment with a standard reference image. The compressed differenced image may be subsequently transmitted and/or stored for subsequent decompression and addition to a standard reference image so as to form a reconstituted or approximated subject image (See Abstract). The method disclosed in Ransford makes use of the fact that images are inherently similar and that therefore, a priori knowledge of the images can be used in their compression. Such technique **allows subtraction of two images**, for example, one standard "healthy" image and one containing data of relative diagnostic significance, including correction for differences in orientation and geometry of the features contained in the images before subtraction. The image which remains after subtraction comprises information due to the differences between the images (column 8, lines 31-41, emphasis added). There is absolutely no disclosure, teaching or suggestion in Ransford about the "span of interest" and that the span of interest is in "time sequence" and "space sequence" as recited in the independent claims and as supported in the specification. At best Ransford's "smooth difference image" may be construed to teach "portion of image" and not "span of interest".

Applicant respectfully submits that Scorse like Ransford does not teach, disclose or suggest similar claim recitations of "span of interest obtained from an acquired imaging sequence" as recited in independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, as amended. The Examiner has referred to Fig. 2, the loop defined by the label "B" as teaching a "span of interest", however the Applicant respectfully submits that in the description of Fig. 2 in column 4, lines 23-45 there is absolutely no disclosure, teaching or suggestion about "span of interest". At best Scorse teaches selecting one or more portions of the video image for transmission (see column 4, lines 34-36) but there is absolutely no disclosure, teaching or suggestion about "selecting a portion of an image in a span of interest obtained from an acquired imaging sequence" as recited in the independent claims.

Examiner has referred to McGary (U.S. Patent No. 5, 521, 634) and Yang et al. (U.S. Patent No. 5, 926, 611) for "lossless compression" as recited in all the independent claims 1, 12, 14, 15, 17, 20, 24, and 31 and "lossy compression" as recited in independent claim 23. However, none of these references taken alone or in combination teach "span of interest" as discussed hereinabove.

Applicant respectfully submits that irrespective of what the other references of Chui, Flower, Reinsch, and Koo which have been used in conjunction with Ransford and Scorse to reject select independent claims and dependent claims under 35 U.S.C. 103 (a), disclose, teach or suggest, since the primary references of Ransford

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and Scorse do not teach, disclose or suggest the specific claims recitations of independent claims as discussed above, any further combination with Ransford and Scorse will still not yield the above claim recitations of the Applicant's application.

Thus the Applicant respectfully submits that the independent claims 1, 12, 14, 15, 17, 20, 23, 24, and 31, are patentable under 35 U.S.C. §103 and therefore, are allowable. Claims 2-8 and 10-11 depend directly or indirectly from claim 1, claim 13 depends from claim 14, claim 16 depends from claim 15, claims 18, 19 depend from claim 17, claim 21-22 depend from claim 20, and claims 25-29 depend from claim 24. These dependent claims are similarly allowable.

In view of the foregoing remarks, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §103 (a).

Summary

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

By 

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